



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

D2934

Job Sheet 212287



Part No: D2934

Job Qty: 24 pcs

37

DAS

21

9-89

Part Name: Saddle Spacer



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/19/20

Job Tracking No:

Due Date: 8/31/20

Created By: Marie Lajeunesse

Type: SOLD *5th*

Description:

Note: DWG REV B IPP A 00.06.06 New Issue EC IPP Rev:B Now 6061-T6 06-06-23 JLM

Ship Via:

## Bill of Materials

## Job Routing

| Op No | Operation           | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off        |
|-------|---------------------|--------|------------|----------|-----------|---------|-----------------------|-----------|-----------------|
|       |                     |        |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |                 |
| 100   | Waterjet - Flow - 1 | 24 pcs |            | 8/29/20  | 0.17      | 0.75    | Waterjet - Flow       |           | <i>20/08/25</i> |
| 120   | QC 8                | 24 pcs |            | 8/29/20  | 0.00      | 0.00    | QC 8 - 12             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 14             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 17             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 20             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 25             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 3              |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 32             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 33             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 35             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 39             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 4              |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 44             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 45             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 49             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 58             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 8              |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 9              |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 68             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 67             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 1 (A)          |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 47             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 40             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 52             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 23             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 57             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 76             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 61             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 66             |           |                 |
|       |                     |        |            |          |           |         | QC 8 - 73             |           |                 |

Plex 8/19/20 8:52 AM Dart.lajeunesse.marie

|                                   |        |         |           |                                            |         |
|-----------------------------------|--------|---------|-----------|--------------------------------------------|---------|
|                                   |        |         |           | QC 8 - 82                                  |         |
| 130 Handfinish - 1-1 Chemical-B4B | 24 pcs | 8/31/20 | 0.00 0.32 | Handfinish - 1 - 1 - B4B                   | M 20.25 |
|                                   |        |         |           | Handfinish - 1 - 2 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 3 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 4 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 5 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 6 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 7 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 8 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 9 - B4B                   |         |
|                                   |        |         |           | Handfinish - 1 - 10 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 11 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 12 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 13 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 14 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 15 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 16 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 17 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 18 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 19 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 20 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 21 - B4B                  |         |
|                                   |        |         |           | Handfinish - 1 - 22 - B4B                  |         |
| 140 QC 7                          | 24 pcs | 8/31/20 | 0.00 0.00 | QC 7 - 10                                  |         |
|                                   |        |         |           | QC 7 - 13                                  |         |
|                                   |        |         |           | QC 7 - 14                                  |         |
|                                   |        |         |           | QC 7 - 15                                  |         |
|                                   |        |         |           | QC 7 - 17                                  |         |
|                                   |        |         |           | QC 7 - 18                                  |         |
|                                   |        |         |           | QC 7 - 19                                  |         |
|                                   |        |         |           | QC 7 - 2                                   |         |
|                                   |        |         |           | QC 7 - 28                                  |         |
|                                   |        |         |           | QC 7 - 3                                   |         |
|                                   |        |         |           | QC 7 - 30                                  |         |
|                                   |        |         |           | QC 7 - 34                                  |         |
|                                   |        |         |           | QC 7 - 36                                  |         |
|                                   |        |         |           | QC 7 - 37                                  |         |
|                                   |        |         |           | QC 7 - 41                                  |         |
|                                   |        |         |           | QC 7 - 47                                  |         |
|                                   |        |         |           | QC 7 - 48                                  |         |
|                                   |        |         |           | QC 7 - 51                                  |         |
|                                   |        |         |           | QC 7 - 58                                  |         |
|                                   |        |         |           | QC 7 - 59                                  |         |
|                                   |        |         |           | QC 7 - 60                                  |         |
|                                   |        |         |           | QC 7 - 9                                   |         |
| QC 7 - 68                         |        |         |           |                                            |         |
| QC 7 - 50                         |        |         |           |                                            |         |
| QC 7 - 67                         |        |         |           |                                            |         |
|                                   |        |         |           | Plex 8/19/20 8:52 AM Dart.lajeunesse.marie |         |



AUG 27 2020 **DAS**  
**40**  
9-89

|                                 |                      |         |           |                        |             |
|---------------------------------|----------------------|---------|-----------|------------------------|-------------|
|                                 |                      |         |           | QC 7 - 40              |             |
|                                 |                      |         |           | QC 7 - 24              |             |
|                                 |                      |         |           | QC 7 - 43              |             |
|                                 |                      |         |           | QC 7 - 61              |             |
|                                 |                      |         |           | QC 7 - 81              |             |
|                                 |                      |         |           | QC 7 - 76              |             |
|                                 |                      |         |           | QC 7 - 79              |             |
|                                 |                      |         |           | QC 7 - 83              |             |
|                                 |                      |         |           | QC 7 - 82              |             |
|                                 |                      |         |           | QC 7 - 87              |             |
| 150 Packaging 3-1 - Stock - B4B | <del>24</del><br>pcs | 8/31/20 | 0.00 0.00 | Packaging 3 - 1 - B4B  |             |
|                                 | 37 pcs               |         |           | Packaging 3 - 2 - B4B  |             |
|                                 |                      |         |           | Packaging 3 - 3 - B4B  |             |
|                                 |                      |         |           | Packaging 3 - 4 - B4B  |             |
|                                 |                      |         |           | Packaging 3 - 5 - B4B  |             |
|                                 |                      |         |           | Packaging 3 - 6 - B4B  | <b>DAS</b>  |
|                                 |                      |         |           | Packaging 3 - 7 - B4B  | <b>28</b>   |
|                                 |                      |         |           | Packaging 3 - 8 - B4B  | 9-89        |
|                                 |                      |         |           | Packaging 3 - 9 - B4B  | AUG 27 2020 |
|                                 |                      |         |           | Packaging 3 - 10 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 11 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 12 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 13 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 14 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 15 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 16 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 17 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 18 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 19 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 20 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 21 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 22 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 23 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 24 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 25 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 26 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 27 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 28 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 29 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 30 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 31 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 32 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 33 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 34 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 35 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 36 - B4B |             |
|                                 |                      |         |           | Packaging 3 - 37 - B4B |             |
| 160 QC 21 - SA                  | 24<br>pcs            | 8/31/20 | 0.00 0.00 | QC 21 - SA - 21        | <b>DAS</b>  |
|                                 |                      |         |           | QC 21 - SA - 70        | <b>21</b>   |
|                                 |                      |         |           | Broussard              | 9-89        |
|                                 |                      |         |           | QC 21 - SA - 9         |             |
|                                 |                      |         |           | QC 21 - SA - 77        |             |

Part Op 100 - 1-Cut as per Dwg D2934  
 Descriptions: 120 - (QC8- Inspect parts - second check)  
 130 - (Chemical Conversion Coat per QSI005 4.1)  
 140 - (QC7-Inspect Chemical Conversion Coat)  
 150 - (Identify as per dwg & Stock Location: \_\_\_\_\_)  
 160 - (QC21- Final Inspection - Work Order Release)

| Job BOM      |                    |                     |                         |           |  |
|--------------|--------------------|---------------------|-------------------------|-----------|--|
| Part / Item  | Component Name     | Quantity            | Operation               | Container |  |
| M6061T6S.080 | 6061-T6 .080 Sheet | .7632 sf (.0318 ea) | 100-Waterjet - Flow - 1 | S242859   |  |

| Job Allocations         |                |          |           |           |  |
|-------------------------|----------------|----------|-----------|-----------|--|
| Operation               | Component Part | Required | Inventory | Allocated |  |
| 100-Waterjet - Flow - 1 | M6061T6S.080   | 1        | 173       | 0         |  |

| Part Specifications |               |                                |                |      |                  |
|---------------------|---------------|--------------------------------|----------------|------|------------------|
| Spec No             | Description   | Target/Tolerance               | Limits         | Type | Special Comments |
| 1                   | Saddle Spacer | 0.475Inches ± 0.010            | 0.485<br>0.465 | .477 |                  |
| 2                   | Saddle Spacer | 0.407Inches ± 0.010            | 0.417<br>0.397 | .408 |                  |
| 3                   | Saddle Spacer | 0.250Inches + 0.030<br>- 0.000 | 0.280<br>0.250 | .265 |                  |
| 4                   | Saddle Spacer | 0.300Inches ± 0.030            | 0.330<br>0.270 | .300 | Radius           |
| 5                   | Saddle Spacer | 0.257Inches + 0.005<br>- 0.000 | 0.262<br>0.257 | .258 | Diameter         |
| 6                   | Saddle Spacer | 0.784Inches ± 0.010            | 0.794<br>0.774 | .783 |                  |
| 7                   | Saddle Spacer | 0.826Inches ± 0.010            | 0.836<br>0.816 | .825 |                  |
| 8                   | Saddle Spacer | 0.360Inches ± 0.030            | 0.390<br>0.330 | .360 | Radius           |
| 9                   | Saddle Spacer | 0.080Inches ± 0.010            | 0.090<br>0.070 | .078 |                  |

Plex 8/19/20 8:52 AM Dart.lajeunesse.marie



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |



**Container No: S296029**



**Part: D2934**

**Job No: 212287**

**Serial No/Batch: S296029**

**Revision:**

**Inspector:**

**Exp Date:**

**Instructions: Various STC's**

**Dart Aerospace Ltd.**

1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 813 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

**Date: 08/25/20**